

WHAT IS CLAIMED IS:

1. Apparatus for selective photothermolysis of a target tissue within the skin, the apparatus comprising:

a housing having an opening therein, said housing forming a cavity enclosing a volume of air when said opening is placed in contact with said skin;

a pulsable heat source disposed within said housing for rapidly heating said volume of air to form a temperature gradient therealong;

a pulsable source of narrow band electromagnetic radiation disposed within said housing for irradiating said skin with narrow band electromagnetic radiation to selectively heat said target tissue;

a sensing unit attached to said housing for sensing the temperature of said skin;

a controller unit connected to said heat source, said source of electromagnetic radiation and said sensor unit for controlling said heat source and said source of electromagnetic radiation, for coordinating the sequence of activation of said heat source and said source of electromagnetic radiation and for receiving signals from said sensor unit; and

at least one power source for energizing said heat source, said source of electromagnetic radiation and said controller.

2. The apparatus according to claim 1 wherein said cavity is a sealed cavity.